

## Product datasheet for **RG221545**

### Caspase-7 (CASP7) (NM\_001227) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Caspase-7 (CASP7) (NM_001227) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CASP7
Synonyms:	CASP-7; CMH-1; ICE-LAP3; LICE2; MCH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221545 representing NM_001227 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGATGATCAGGGCTGTATTGAAGAGCAGGGGGTTGAGGATTCAGCAAATGAAGATTCAGTGGATG  
CTAAGCCAGACCGGTCTCGTTTGTACCGTCCCTCTTCAGTAAGAAGAAGAAAAATGTCACCATGCGATC  
CATCAAGACCACCGGGACCGAGTGCCTACATATCAGTACAACATGAATTTTAAAAGCTGGGCAAATGC  
ATCATAATAACAACAAGAAGCTTTGATAAAGTGACAGGTATGGCGTTTCAAACGGAACAGACAAAGATG  
CCGAGGCGCTCTCAAGTCTCCGAAGCCTGGGTTTTGACGTGATTGTCTATAATGACTGCTCTTGTGC  
CAAGATGCAAGATCTGCTTAAAAAGCTTCTGAAGAGGACCATACAAATGCCGCCTGCTTCGCCTGCATC  
CTCTTAAGCCATGGAGAAGAAAATGTAATTTATGGGAAAGATGGTGTACACCAATAAAGGATTTGACAG  
CCCCTTTAGGGGGGATAGATGCAAAACCTTTTAGAGAAACCCAACTCTTCTTCATTGAGGCTTGCCG  
AGGGACCGAGCTTGATGATGGCATCCAGGCCGACTCGGGGCCATCAATGACACAGATGCTAATCCTCGA  
TACAAGATCCCAGTGAAGCTGACTTCTTTCGCCTATTCCACGGTTCAGGCTATTACTCGTGGAGGA  
GCCAGGAAGAGGCTCCTGGTTTGTGCAAGCCCTCTGCTCCATCCTGGAGGAGCAGGAAAAGACCTGGA  
AATCATGCAGATCCTCACCAGGGTGAATGACAGAGTTGCCAGGCCTTTGAGTCTCAGTCTGATGACCCA  
CACTTCCATGAGAAGAAGCAGATCCCCTGTGTGGTCTCCATGCTACCAAGGAAGCTACTTCAGTCAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG221545 representing NM\_001227  
 Red=Cloning site Green=Tags(s)

MADDQGCIEEQGVEDSANEDSVDAKPDRSSFVPSLFSKSKKKNVTMRSIKTTRDRVPTYQYNMNFELGKC  
 I I I N N K N F D K V T G M G V R N G T D K D A E A L F K C F R S L G F D V I V Y N D C S C A K M Q D L L K K A S E E D H T N A A C F A C I  
 L L S H G E E N V I Y G K D G V T P I K D L T A H F R G D R C K T L L E K P K L F F I Q A C R G T E L D D G I Q A D S G P I N D T A N P R  
 Y K I P V E A D F L F A Y S T V P G Y Y S W R S P G R G S W F V Q A L C S I L E E H G K D L E I M Q I L T R V N D R V A R H F E S Q S D D P  
 H F H E K K Q I P C V S M L T K E L Y F S Q

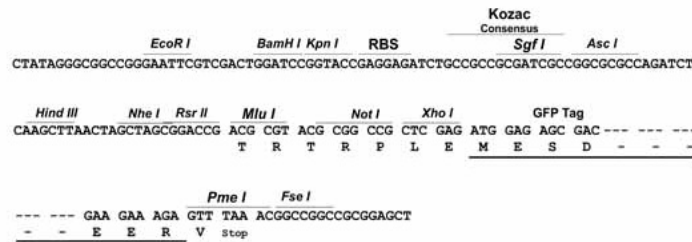
TRTRPLE - GFP Tag - V

Restriction Sites:

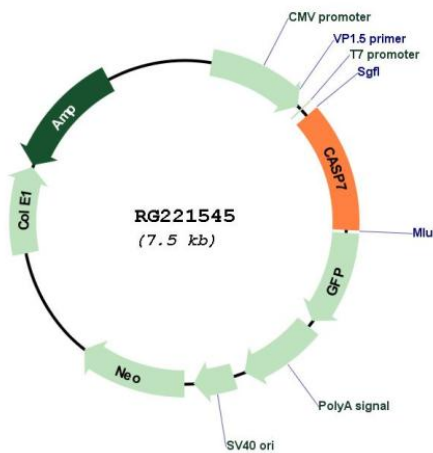
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_001227

ORF Size: 909 bp

<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001227.5</a>
<b>RefSeq Size:</b>	2605 bp
<b>RefSeq ORF:</b>	912 bp
<b>Locus ID:</b>	840
<b>UniProt ID:</b>	<a href="#">P55210</a>
<b>Cytogenetics:</b>	10q25.3
<b>Domains:</b>	CASc, ICE_p10, ICE_p20
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Alzheimer's disease, Apoptosis
<b>Gene Summary:</b>	This gene encodes a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. The precursor of the encoded protein is cleaved by caspase 3 and 10, is activated upon cell death stimuli and induces apoptosis. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]